

INFORMATION REPORT

DATE DISTR. 28 JULY 1954

Production and Research at the Schwarza
Fiber Plant/Principal Centers for Spinning Synthetic
Fibers

NO. OF PAGES - 2

NO. OF ENCLS.
(LISTED BELGW)SUPPLEMENT TO
REPORT

THIS IS UNEVALUATED INFORMATION

1.

The Schwarza plant was always short of electricity, which was due to the great amount of electrical power required to operate the uranium mines in East Germany. Schwarza has a small stand-by power station for lighting, heating, etc, but their principle source of supply is a power plant located on the Saale River.

2. Raw materials were always in short supply at Schwarz. The plant obtained its lactam from Wolfen and Leuna. It was difficult to keep the perlon plant busy because of the shortage of lactam and other intermediate materials. There was also a shortage of cellulose which was obtained from the USSR. [] never knew from day to day the amount or quality of cellulose [] would receive. Incidentally, [] Schwarz received its cellulose [] in a trade exchange for East German perlon and machine tools. Schwarz had its own sulfuric acid plant,

CLASSIFICATION				CONFIDENTIAL/US OFFICIALS ONLY			
DISTRIBUTION				AMOCD X C/SI EV OAR X ATIC X			

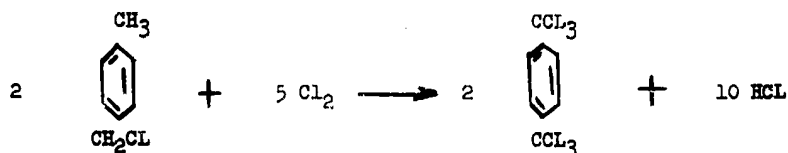
CONFIDENTIAL/US OFFICIALS ONLY

- 2 -

25X1

but received sulfides from Poland for use in the production of viscose by the well known xanthate process.

3. The chemical equipment used at Schwarza for the chlorination of para-chloromethyl toluene to obtain raw materials for dacron is rather unique due to its design. The chlorination process is quite involved and employs the use of ultra violet light. The equipment consists of a stainless steel tube, approximately 39 inches in length and four inches in diameter, with a smaller glass tube inserted inside in a reaction mixture. At the bottom of the large tube is a glass frit for chlorine. To the right of the frit is an effluent tube where hexachloro-para-xylene is introduced. At the top is an effluent tube for HCL and a smaller inlet tube for para-chloromethyl toluene. The ultra-violet light is in the central glass tube, encased in glass wool, and uses a 110 volt current.
4. The chlorine is introduced in the glass frit or sintered plate and bubbles to the top of the tube to effect the chlorination of para chloromethyl toluene to para-hexachloro-toluene. The process is catalyzed by ultra-violet light which is in the central glass tube. The formula is as follows:



PRINCIPAL CENTERS FOR SPINNING SYNTHETIC FIBERS

5. The principal spinning centers for synthetic fibers in East Germany are located at Schwarza, Premnitz, Pirna (near Dresden), and Wolfen. The Schwarza plant produces perlon and viscose rayon; Premnitz, perlon and dacron; Pirna, viscose rayon and perhaps acetate rayon; and Wolfen, perlon. The Premnitz plant also was putting into operation, in 1952, a small pilot plant for orlon which has a capacity of 50 - 100 lbs per day. [redacted] synthetic fibers are not produced at Bitterfeld or at Chemnitz. Bitterfeld has an electro-chemical factory which produces sodium and chlorine, toluene and other aromatic compounds. Schwarza received its chlorine from Bitterfeld which is also a large supplier to the I G Farben group. [redacted]

25X1

25X1

25X1

CHEMICAL PROCESSES FOR THE PRODUCTION OF INTERMEDIATE MATERIALS

25X1

6. The chemical process used for the production of lactam from phenol is well known. Caprolactam is made at Wolfen and Leuna, the only two plants in East Germany. Terephthalic acid is produced in East Germany, only at Rodleben at a plant which produces about 50 lbs per day. [redacted]

25X1

CONFIDENTIAL/US OFFICIALS ONLY

25X1

25X1

Page Denied